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Lee

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(54) **STEAM IRON**

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D06F 75/34 (2006.01)

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(58) **Field of Classification Search** 219/245; 38/90, 74–77.9, 88, 95
See application file for complete search history.

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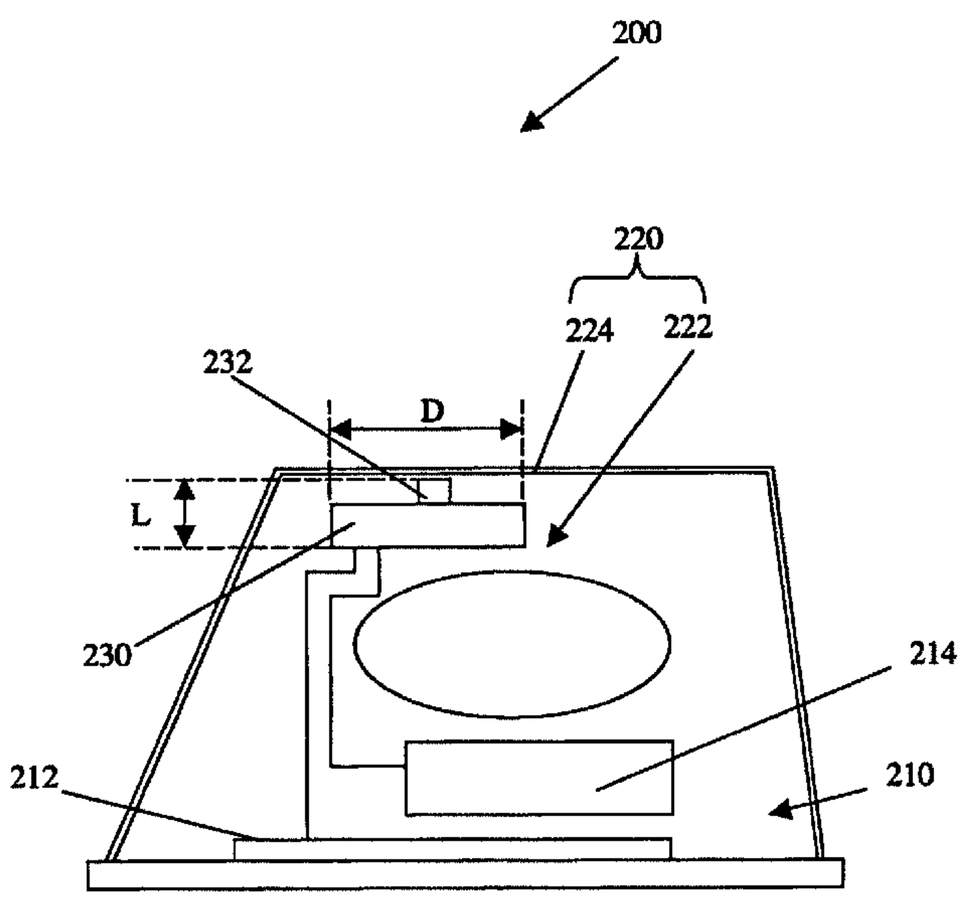
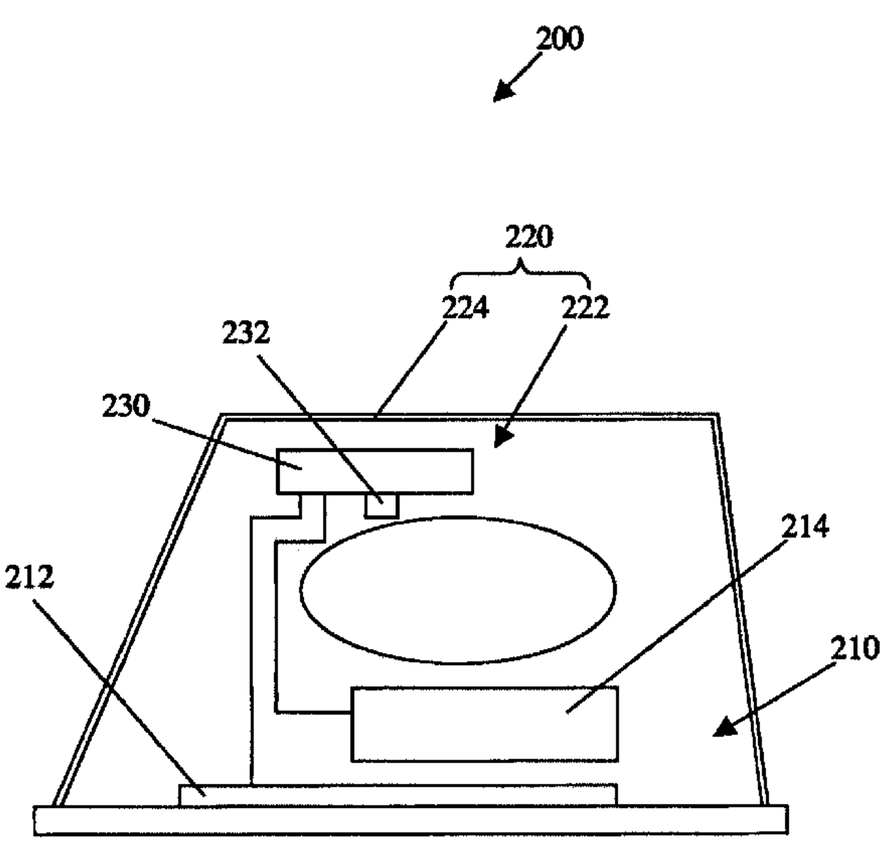
(57) **ABSTRACT**

A steam iron is disclosed. The steam iron at least includes a base, a handle and a mechanical pump, in which the base has a steam generator and a water tank. The handle is connected with the base. The handle has a storage space and a shell surrounding the storage space. The mechanical pump is set in the storage space of the handle. The mechanical pump is connected with the steam generator and the water tank, and the bailing member of the mechanical pump is adjacent to the handle. The invention provides the mechanical pump having the bailing member that has short length and mounted in the handle. Because the bailing member may be hidden in the handle, user can easily press the bailing member without driving up finger to press the bailing member. So, the problem is solved that common steam iron is discommodiously used.

4 Claims, 4 Drawing Sheets





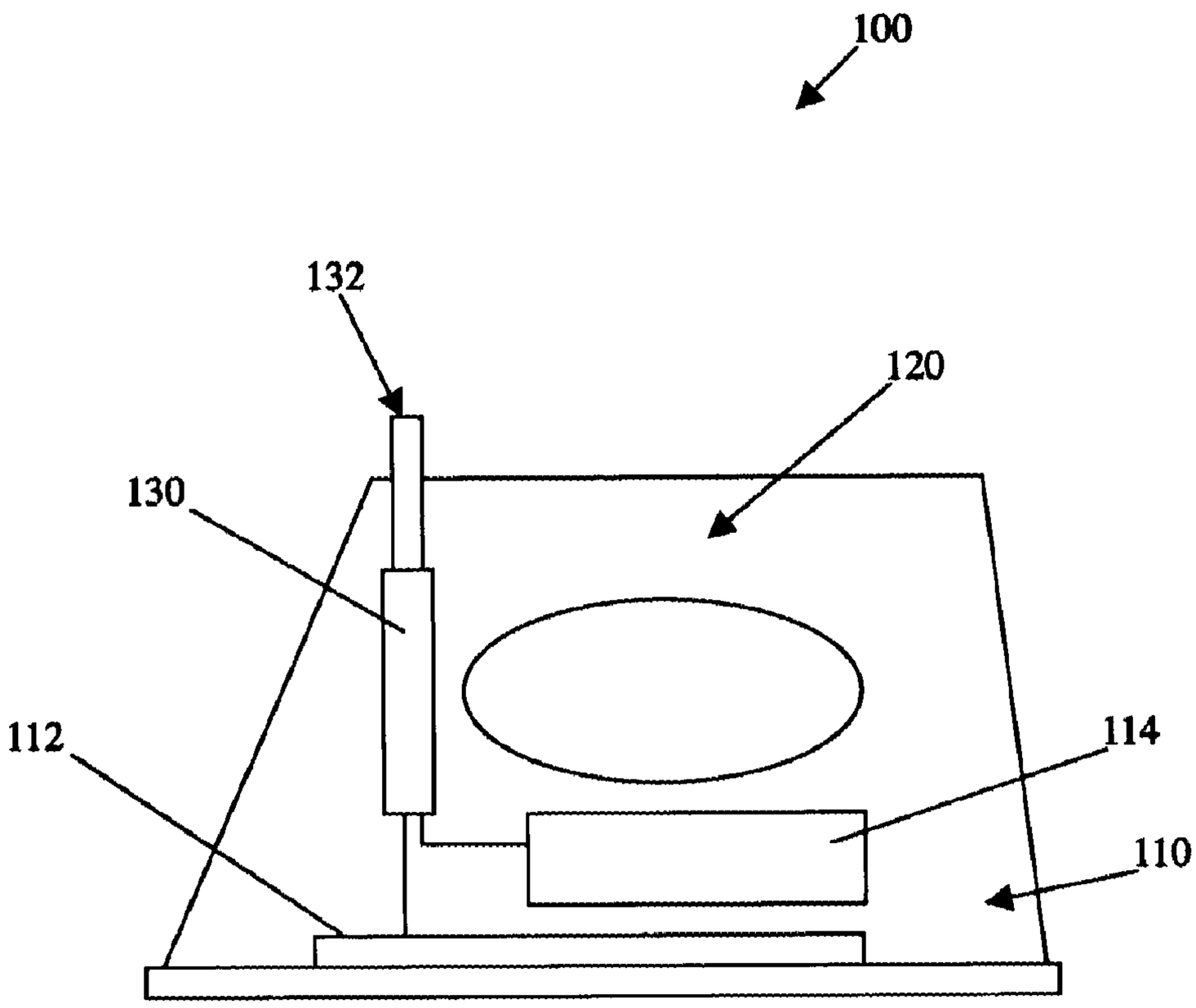


FIG. 1
PRIOR ART

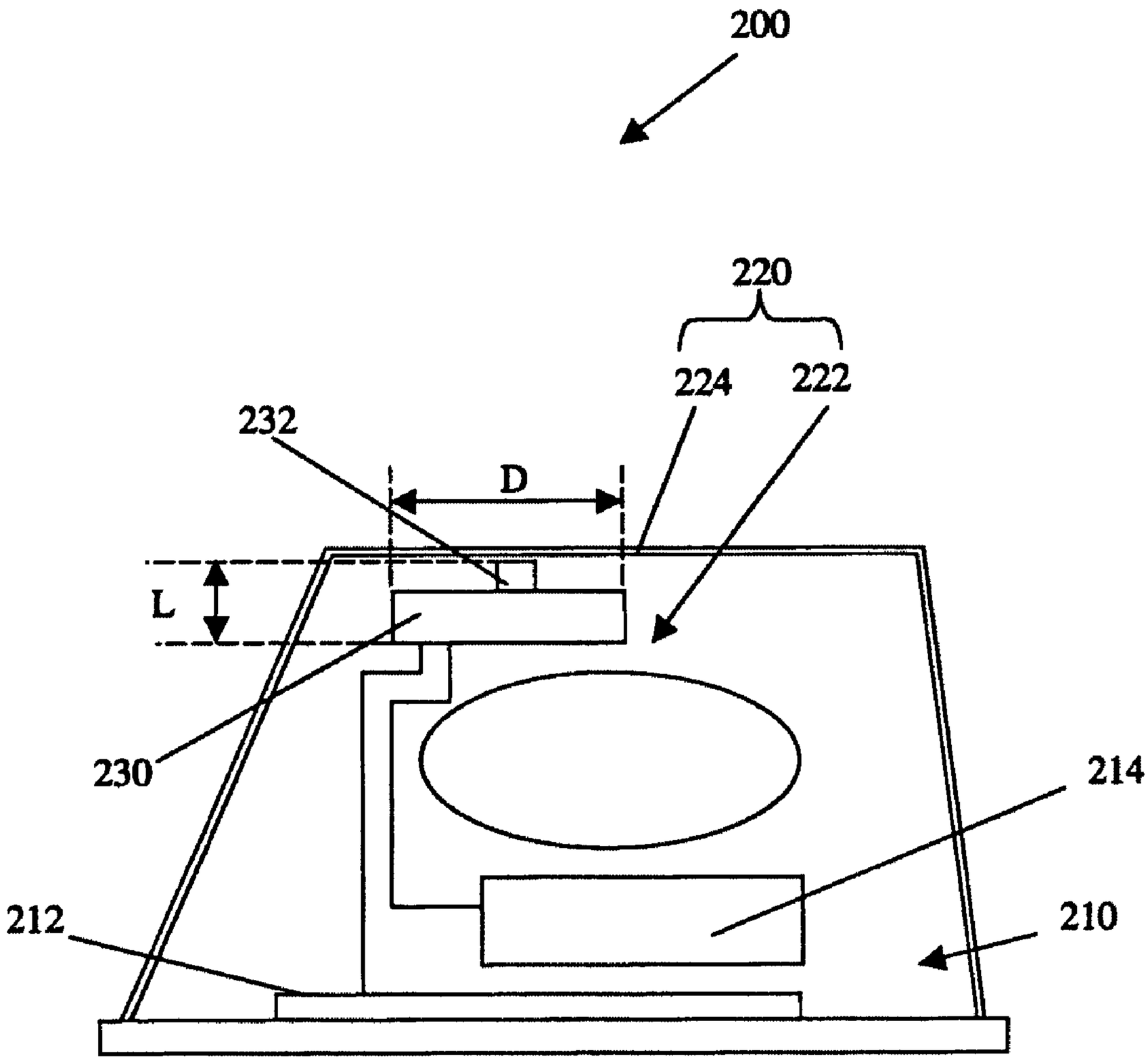


FIG. 2A

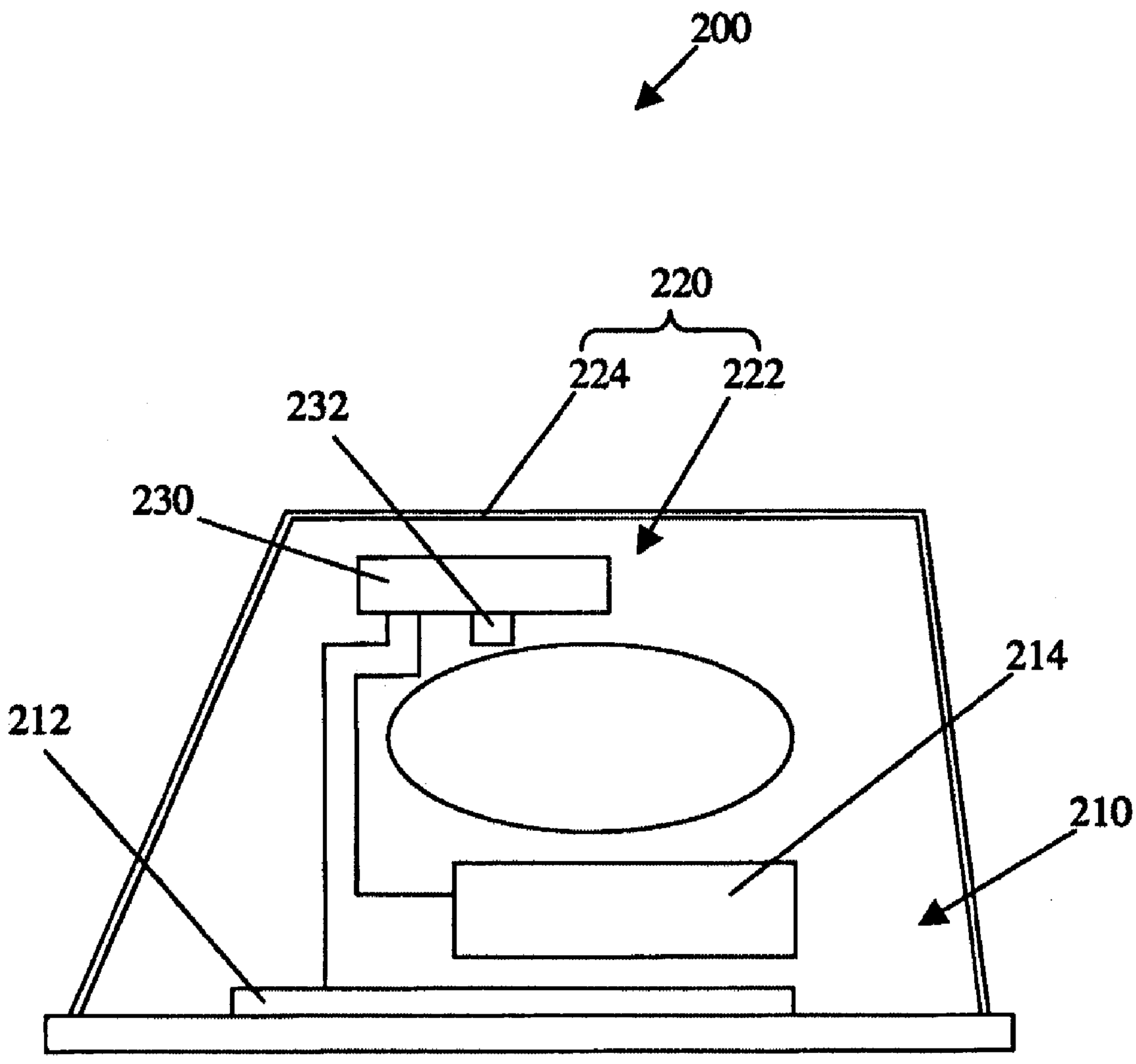


FIG. 2B

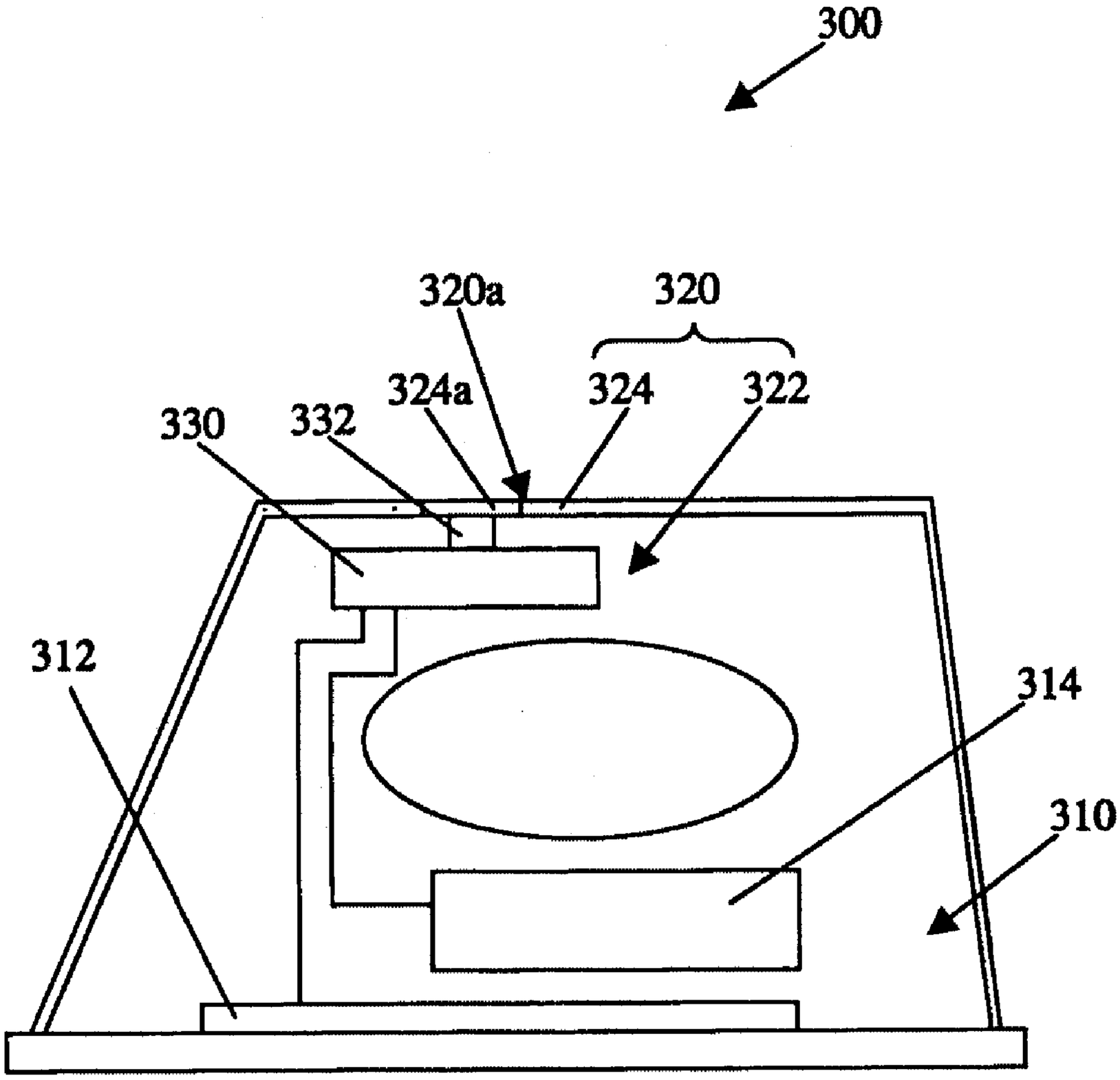


FIG. 3

STEAM IRON

TECHNOLOGY FIELD

This invention relates to a steam iron, especially to a steam iron with a bailing member of a mechanical pump can be hidden in a shell of a handle.

BACKGROUND OF THE INVENTION

Referring to FIG. **1**, it is a cross-section diagram of the existing steam iron. The steam iron **100** includes a base **110**, a handle **120** and the mechanical pump **130**, in which the base **110** has a steam generator **112** and a water tank **114**. A handle **120** is connected to the base **110**, the mechanical pump **130** is set between the handle **120** and the base **110**, in which the mechanical pump **130** is connected to the steam generator **112** and the water tank **114**, the mechanical pump **130** is used to transport the water from the water tank **114** to the steam generator **112** to generate steam.

However, there are still some inconvenience exists in such steam iron **100**, for example, the bailing member **132** of the mechanical pump **130** protrudes from the top of the handle **120** a distance, this leads to that user must drive up finger to press the bailing member **132** when user grasps the handle **120** in the ironing process so the actual use is not very smoothly. In addition, the bailing member **132** protruding from the top of the handle **120**, this leads to that the steam iron **100** is not streamline, so the existing steam iron **100** does not satisfy the actual needs of current users.

SUMMARY OF THE INVENTION

The present invention is to provide a steam iron, which overcomes the problem that it is not smooth to press the bailing member **132** in existing steam iron and satisfies the actual needs of users.

The present invention adopts the following technical solution: a steam iron, at least comprising: a base, a handle and a mechanical pump, in which the base has a steam generator and a water tank. The handle is connected with the base, the handle has a storage space and a shell surrounding the storage space. The mechanical pump is set in the storage space of the handle, the mechanical pump is connected with the steam generator and the water tank, and the bailing member of the mechanical pump is adjacent to the shell of said handle. The present technical solution provides the mechanical pump having the short bailing member and mounted in the handle, because the bailing member of the mechanical pump may be hidden in the handle, user can easily press the bailing member without driving up finger to press the bailing member, thus the problem is solved that common steam iron is discommodiously used

The shell of the handle surrounds the mechanical pump.

The bailing member does not go through the shell of said handle.

The bailing member faces to the shell of the handle.

The handle can be a pliable handle.

The pliable handle is made of synthetic rubber.

A movable shell is provided on the surface of the handle, the movable shell is adjacent to the bailing member of the mechanical pump.

The handle can be a rigid handle.

The length of the mechanical pump is between 10 mm to 15 mm.

The diameter of the mechanical pump is between 20 mm to 35 mm.

The bailing member of the mechanical pump is contacted with the shell of said handle.

The steam iron based on the present invention, provides the mechanical pump having the short bailing member, and the bailing member of the mechanical pump may be hidden in the handle, not only the problem that it is not smooth to press the bailing member **132** in existing steam iron is resolved, but also the appearance of the iron shows a sense of streamline. The steam iron based on the present invention, the advantages: the mechanical pump has the short bailing member, although the operating distance of the bailing member of the mechanical pump is reduced, the bailing capability of the pump is not reduced, the bailing member of the mechanical pump may be hidden in the handle, it satisfies the actual needs of current users

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will be further explained with the drawings and the embodiments.

FIG. **1** is a sectional view of the existing steam iron.

FIG. **2**A is a sectional view of the steam iron of one preferred embodiment of the present invention.

FIG. **2**B is a sectional view of the steam iron of another preferred embodiment of the present invention.

FIG. **3** is a sectional view of the steam iron of the other preferred embodiment of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIG. **2**A, it is a sectional view of the steam iron **200** of one preferred embodiment of the present invention. The steam iron **200** comprising: a base **210**, a handle **220** and a mechanical pump **230**, in which the base **210** has a steam generator **212** and a water tank **214**. A handle **220** is connected to the base **210**, the handle **220** has a storage space **222** and a shell **224** surrounding the storage space **222**. The mechanical pump **230** is set in the storage space **222** of the handle **220**, in which the mechanical pump **230** is connected to the steam generator **212** and the water tank **214**, the mechanical pump **230** is used to transport the water from the water tank **214** to the steam generator **212** to generate steam

In this embodiment, The shell **224** of the handle **220** surrounds the mechanical pump **230**, the bailing member **232** of the mechanical pump **230** is adjacent to the shell **224** of said handle and does not go through the shell **224** of said handle. Alternatively, the bailing member **232** of the mechanical pump **230** is contacted with the shell **224** of said handle. In the present invention, the outline of the mechanical pump **230** is changed, the length of the mechanical pump **230** is reduced to the length between 10 mm and 15 mm, the diameter of the mechanical pump is enlarged to the length between 20 mm to 35 mm, this does not lead to the bailing capability of the pump is reduced, and the length of the bailing member **232** of the mechanical pump **230** is shortened, so the bailing member **232** of the mechanical pump **230** may be hidden in the handle **220**. In this embodiment, the handle **220** can be a pliable handle, the pliable handle is made of synthetic rubber.

In addition, the pliable handle is deformable, when user press the handle **220** positioned above the bailing member **232** of the mechanical pump **230**, the handle **220** is deformed, and the bailing member **232** hidden in the handle **220** can be pressed. The bailing member **232** of the mechanical pump **230** can be positioned upwardly as illustration in FIG. **2**A, also can be positioned downwardly as illustration in FIG. **2**B, but no limit by these, the bailing member **232** of the mechani-

cal pump **230** can be positioned in all directions as long as the bailing member **232** of the mechanical pump **230** faces to the shell **224** of the handle **220**.

Referring to FIG. **3**, it is a sectional view of the steam iron **300** of another preferred embodiment of the present invention. The steam iron **300** comprising: a base **310**, a handle **320** and a mechanical pump **330**, in which the base **310** has a steam generator **312** and a water tank **314**. A handle **320** is connected to the base **310**, the handle **320** has a storage space **322** and a shell **324** surrounding the storage space **322**. The mechanical pump **330** is set in the storage space **322** of the handle **320**, in which the mechanical pump **330** is connected to the steam generator **312** and the water tank **314**, the mechanical pump **330** is used to transport the water from the water tank **314** to the steam generator **312** to generate steam. In this embodiment, the shell **324** of the handle **320** surrounds the mechanical pump **330**, a movable shell **324***a* is provided on the surface **320***a* of the handle **320**, the bailing member **332** of the mechanical pump **330** is adjacent to the movable shell **324***a*. When user press the movable shell **324***a*, the movable shell **324***a* moves downwardly and is contacted with the bailing member **332** of the mechanical pump **330**, and the mechanical pump **330** actives the bailing operation. In this embodiment, the handle **320** can be a rigid handle, and is made of PP, but no limit by this, the pliable handle can be used. In addition, the structure of the mechanical pump **330** is similar to the aforementioned embodiment.

As mentioned above, the steam iron based on the present invention, the mechanical pump having the short bailing member is provided, and the bailing member of the mechanical pump may be hidden in the handle, since the bailing member of the mechanical pump may be hidden in the handle, this leads to user can easily press the bailing member without driving up finger to press the bailing member, the problem that it is not smooth to press the bailing member in existing steam iron is resolved. Compared with the existing steam iron, in this invention, the bailing member of the mechanical pump may be hidden in the handle, and the problem that it is not smooth to press the bailing member in existing steam iron is resolved, and the appearance of the iron shows a sense of streamline

INDUSTRY PRACTICABILITY

As known from the preferred embodiments, the steam iron based on the present invention, the advantage is: though the mechanical pump has the short bailing member, the bailing capability of the pump is not reduced, and a bailing member and a mechanical pump can be hidden in the handle of the iron, so the actual needs of current users are satisfied

As mentioned above, the described embodiments are to be considered in all respects only as illustrative and no restrictive. All changes which come within the meaning and range of equivalency of the claims are to be embraced with their scope.

The invention claimed is:

1. A steam iron, comprising:

a base containing a steam generator and a water tank;

a pliable handle connected with said base and containing a mechanical pump connected to said steam generator and said water tank, said mechanical pump having a bailing member that is covered by a shell of said handle and is pressable via deformation of the handle.

2. The steam iron according to claim **1**, wherein the length of the mechanical pump is between 10 mm to 15 mm.

3. The steam iron according to claim **1**, wherein the diameter of the mechanical pump is between 20 mm to 35 mm.

4. The steam iron according to claim **1**, wherein the bailing member is in contact with the shell of said handle.

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